

REMARKS

The Office Action dated October 23, 2006 has been received and carefully considered. In this response, claims 1, 14, 21, and 23 have been amended. Entry of the amendments to claims 1, 14, 21, and 23 is respectfully requested. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

I. THE ANTICIPATION REJECTION OF CLAIMS 1-10, 13-15, AND 21-29

On page 2 of the Office Action, claims 1-10, 13-15, and 21-29 were rejected under 35 U.S.C. § 102(e) as being anticipated by Wu et al. (U.S. Patent No. 6,981,114, hereinafter "Wu"). This rejection is hereby respectfully traversed.

Like previously cited references, Wu disclose a data backup approach that is still based on the creation and storage of volume-level snapshots. The entire disclosure of Wu is directed to an optimization process in the management of volume-level snapshots, i.e., "techniques for reconstructing deleted snapshot copies of a data volume" (Wu: Field of the Invention) (emphasis added). The sheer size of volume-level snapshots dictates that only a limited number of such snapshots can be maintained in a storage system. That is why Wu finds it necessary to provide a snapshot reconstruction method to recover, in a limited capacity, a deleted snapshot. In other words, Wu still relies

on volume-level snapshots and has not disclosed or even suggested a data protection technique, as presently claimed, that can dispense with volume-level snapshots.

In addition, although Wu discloses the creation of a modification log, which is somewhat similar to a copy-on-write operation, the use of the modification log is limited to the context of snapshot reconstruction. The modification log is only maintained for a period of time between two consecutive snapshots, and it is unclear whether the maintenance of modification logs is done continuously for every two consecutive snapshots. In any event, the modification log is created with necessary reference to at least one volume-level snapshot. Furthermore, Wu does not teach or suggest the use of the modification log to recover portions of a data volume at any point in time. Instead, Wu's use of the modification log is expressly limited to the reconstruction of a previously created but currently deleted volume-level snapshot. That is, the data recovery point in Wu is limited to the time points at which a snapshot was created, and the recovery is on the level of data volumes. In contrast, the present application claims the use of backup data to restore any portion of a data store to any point in time.

Regarding independent claims 1, 14, 21, and 23, the Examiner asserts that Wu discloses the same elements as previously claimed. Although Applicants do not agree with this assertion, Applicants have amended claims 1, 14, 21, and 23 to further distinguish the present invention from Wu. The amended claims 1, 14, 21, and 23 now recite, in varying manners, the use of backup data to "identify historic data that were present in a specified portion of the plurality of units of storage at any point" during a period of time. Since Wu does not teach or suggest this element, claims 1, 14, 21, and 23 are allowable over Wu.

Since claims 2-13 and 26-27 all depend from claim 1, claims 15-20 and 28 all depend from claim 14, and claims 24-25 and 29 all depend from claim 23, these dependent claims should be patentable over Wu for at least the same reasons.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1-10, 13-15, and 21-29 be withdrawn.

II. THE OBVIOUSNESS REJECTION OF CLAIMS 11, 12, AND 16-20

On page 8 of the Office Action, claims 11, 12 and 16-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu in view of "UNIX In A Nutshell" by Daniel Gilly and the staff of O'Reilly & Associates, Inc. (hereinafter "Gilly").

It is believed that these obviousness rejections have become moot in view of the deficiencies of the primary reference Wu as discussed above. Since Gilly does not teach or suggest the claim element that Wu fails to disclose, the combination of Wu with Gilly cannot render any of the pending claims obvious.

Applicants would also like to draw the Examiner's attention to the common ownership of Wu and the present application by Symantec Corp. Wu was assigned to VERITAS Operating Corp. which merged with Symantec Corp. in 2005. The present application was assigned to Revivio, Inc. which was acquired by Symantec Corp. in 2006.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 11, 12 and 16-20 be withdrawn.

III. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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